

SHOTS FIRED ABOVE, BEHIND, SAYS AGENT



—Photo by The Times-Picayune.
MRS. RUTH PAINE
Scheduled to testify.



—Photo by The Times-Picayune.
ROBERT A. FRAZIER
FBI expert gives testimony.

Warren Report Supported in Court Testimony

Federal Bureau of Investigation agent Robert A. Frazier testified Saturday in the Clay L. Shaw trial that he could find nothing to indicate shots that killed President John F. Kennedy were fired from anywhere but "above and behind" the Presidential limousine.

Frazier, his voice low because of laryngitis, was on the witness stand all of Saturday morning. Chief Defense Counsel F. Irvin Dymond finished his direct examination of Frazier; and the state, led by assistant district attorneys Alvin A. Oser Jr. and James L. Alcock, took up cross-ex-

Continued from Page 1

the coat as being the President's," interjected Alcock. Judge Haggerty sustained Dymond's objection over Oser's questioning.

"Do you know how the evidence got back to Washington?" continued Oser.

"No, sir," said Frazier.

"When did you see the rifle first?" asked Oser. He referred to the rifle that allegedly killed the President.

"It was on Nov. 22, 1963," said Frazier.

Oser then ran through a number of questions, all rolled into one, including "Did you get all the FBI reports dealing with the assassination?" Judge Haggerty sustained Dymond's objection over them and asked Oser to break them down. "I will rule on them one at a time," said the judge.

"Did you make any attempts to get the FBI reports on the Presidential limousine?" asked Oser.

"It has not yet been established there were any reports," said Dymond.

Judge Haggerty asked Oser to rephrase the question.

"Did you attempt to get the FBI reports before your investigation?" asked Oser.

"No, I didn't," said Frazier.

"Are you familiar with FBI Supplemental report?" began Oser.

Dymond objected.

Oser asked, "Did you examine the President's car?"

"Yes," replied Frazier.

"Did you find an indented area above the windshield?" asked Oser.

"Yes, I did," he said.

"Are you familiar with an FBI report of Jan. 13, 1964?" questioned Oser.

Dymond objected. "I ask that this report be submitted and then ask him if he recognizes it," said Dymond. "If the state has it, I ask they show it."

Frazier answered the question, "I don't recall any by dates."

Frazier said he and two other ballistics experts handled the investigation of the assassination. He said they were Courtland Cunningham and Charles

amination of him.

During the early parts of the cross-examination, Oser sought to break down the Warren Commission Report. He obtained testimony from Frazier that the limousine he used in recreating the assassination May 24, 1964, was not the one used by President Kennedy on his trip through Dealey Plaza in Dallas, Tex., Nov. 22, 1963.

Oser sought to find out how evidence from the scene of the assassination in Dallas was moved so quickly to Washington, D.C.; but Frazier said he could not testify how it did. There was a bitter exchange between state and defense attorneys and at one point Dymond told Criminal District Court Judge Edward A. Haggerty, "If the state wants to charge the federal government with fraud, it should come out and do so."

Shaw is charged by District Attorney Jim Garrison with allegedly conspiring to kill President Kennedy. Garrison sat in on about an hour's cross-examination of Frazier but said nothing to the witness. He whispered to Oser at one break in the proceedings.

'Easy Shot' Allegedly Killed President Kennedy

Among highlights of Frazier's concluding direct examination were these:

The fatal shot that struck President Kennedy would have been "a relatively easy shot" from the sixth floor window of the Texas Book Depository.

He was unable to find anything in his examination that would be inconsistent with all shots fired on the presidential limousine coming from the right rear area.

As the cross-examination of Frazier opened, Oser immediately tried to find out how the evidence left the scene of the assassination so quickly. Alcock explained in the ensuing hassle that this was important "because of the element of change—whose hands it passed through."

This prompted Dymond to say, "If the state wants to charge the federal government with fraud, it should come out and do so."

Judge Haggerty said, "At no time yesterday did I permit Mr. Frazier to say this was the gun that killed the President."

"But he testified earlier on

Cont. in Sec. 1, Page 27, Col. 1

Killion.

Witness Is Questioned About Measurements

"Did you take the measurements of the rear seat from the jump seat of the Presidential limousine?" asked Oser.

"Don't recall I did," said Frazier.

"Are you able to say how far it is from the jump seat to the rear seat?" continued Oser.

"I don't recall taking that measurement," answered Frazier.

"Did you testify that the Presidential limousine was not used in the reconstruction of the assassination?" asked Oser.

"No, sir, it wasn't," said Frazier.

"Why?" asked Oser.

"I think it was being re-finished," said Frazier.

"This recreation was done five months after the assassination?" asked Oser.

"Yes, sir," replied Frazier.

"What kind of car was used?" continued Oser.

"A Cadillac limousine," replied Frazier.

"Did it correspond in measurements of the jump seat to the rear seat with the Presidential limousine?" asked Oser.

"I don't know that," said Frazier.

Oser tried to find out why Frazier himself didn't ask for the Presidential limousine in conducting the recreation.

"Did you have authority to do this?" asked Oser.

"No, sir," said Frazier.

"Did you have to go to somebody higher up?" Oser probed.

"That's not quite right," said Frazier. "The President's (Warren) Commission handled it. I was there as a consultant."

"You conducted the test as the Warren Commission asked?" questioned Oser.

"Generally speaking, yes," answered Frazier.

"During the reconstruction did you have available the FBI reports of interviews with Mr. and Mrs. William E. Newman?" asked Oser.

"I didn't have any FBI reports," said Frazier.

"Did you see any statements by any witnesses in Dealey Plaza?" asked Oser.

"I don't recall," answered Frazier.

"I believe you testified that the occupants of the car were placed in relative positions by

the Warren Commission," continued Oser.

"Yes, sir, according to the Zapruder film," Frazier said.

Oser asked Frazier how carefully he checked the Zapruder film.

"I saw it on three examinations," said Frazier. "I saw it once at normal speed, then examined it frame by frame, and finally enlargements concentrating particularly on those frames selected by the President's Commission."

"Did you testify to the Warren Commission that you didn't believe you made a thorough study of the Zapruder film?" quizzed Oser.

"That's right," agreed Frazier. "I didn't consider it a thorough study."

Oser then asked that the jury be taken out, that he wanted the court to see some exhibits before they were introduced. Judge Haggerty excused the jury, and Oser and the defense counsel stepped into the judge's office to confer.

Defense Objects to Showing Blowup

They returned and Oser had with him large 3 feet by 4 feet blowups.

"I show you what the State calls Exhibit No. 61," said Oser.

"We object," said William Wegmann, one of Shaw's attorneys. "This is a picture of a picture in the Warren Commission report. No foundation has been laid for its introduction."

Judge Haggerty intervened, asking Frazier if he recognized the picture of the President's coat as being similar to the one he examined in his investigation of the assassination.

"I would say it is similar," said Frazier.

"If it is similar I will admit it," said Judge Haggerty.

"All coats are similar," interjected Dymond.

Oser went through four more pictures, purporting to depict the President's shirt and tie, the pellet Frazier examined, a picture of the scene of the reconstruction and finally a bullet. Despite defense objections

on each, Judge Haggerty said, "I will accept this offer as similar; I will accept it on that premise." Dymond told the judge, "We object on the grounds that similar is not enough grounds to admit them into evidence."

As the jury was being brought back, Oser went over to speak with Garrison for about a minute.

Oser then went through the formality of getting S61, S62 and S63 introduced as evidence and, with the assistance of assistant district attorney William Alford, tacking them on exhibit boards.

"Referring to S61," said Oser, "can you tell us how it is dissimilar to the coat you examined?"

"It doesn't show the detail," answered Frazier. "Being a copy of a copy, but generally speaking it represents the coat."

Oser asked Frazier to step down from the witness stand. "Can you point out on this exhibit where you found the hole in the President's coat?" asked Oser.

"That wouldn't be possible," Frazier answered.

"Give me the mid-line," continued Oser.

"There is no reference point," said Frazier.

"I show you this white line," said Oser. "Is this not the approximate position?"

"There is no way to tell that," replied Frazier.

"You can't approximate the location?" asked Oser.

"No, sir," said Frazier.

"Can you point out the approximate location of the hole in the shirt?" resumed Oser.

"No, sir, because the photo doesn't represent the back of the collar," said Frazier. "I could give an approximate area."

Witness Places Pin to Approximate Hole

Oser asked Frazier to do so. Frazier took a rule from Judge Haggerty and started measuring. "There is no way to describe this area I'm pointing out," said Frazier. Oser asked Frazier to put a pin in the approximate location and he did.

"In regards to the front area of the shirt, point the location of the slit or tear," said Oser.

"Yes, sir," said Frazier.

"I also ask you if you can

point out the general area of the tear or rip in the President's tie," said Oser.

"Yes, sir," said Frazier.

"Now the hole you found in the President's coat, was it a single hole?" inquired Oser.

"Yes, it was," said Frazier.

"Was it a single hole through the back of his shirt?" asked Oser.

"Yes, sir," said Frazier.

"Can you tell us if the coats and shirts of Gov. John B. Connally and the President were worn by the standins during your recreation of the assassination?" asked Oser.

"Only the coat of the governor," said Frazier.

"And the coat of the governor had been laundered?" asked Oser.

"Yes," said Frazier.

Oser turned to any particular markings that Frazier used in his sighting from the Texas Book Depository.

Frazier said there was a chalk mark placed on the coat used by the standin for the President and tape was placed on the limousine.

"You were using the skin hole of the President as opposed to the coat hole?" asked Oser.

"Yes," said Frazier.

"Regarding Gov. Connally, do you know that the coat hole and not the skin hole was used?" questioned Oser.

"I don't know," said Frazier.

"Can you say why the skin hole was used for the President but the laundered coat hole was used for the governor?" Oser asked.

"I have no opinion as to this question," said Frazier.

Frazier said there was a mark on the back of Gov. Connally's standin.

"What did it correspond to?" asked Oser.

"I couldn't see from the sixth floor," said Frazier.

"When you viewed the governor's standing through the telescopic sight, did you see the mark on him?" asked Oser.

"Yes, sir," said Frazier. "I did."

"I believe you said in your direct questioning that at Frame

313 of the Zapruder film you had a clear shot at the President from the sixth floor window," said Oser.

"Yes sir," said Frazier.

Garrison, Companion Leave Court Quietly

Garrison, who had been in the courtroom for nearly an hour, beckoned to a companion, and they both left the courtroom quietly.

Oser asked Frazier to step down and look at the mockup of Dealey Plaza. He pointed to what he called the Records Building and asked Frazier if, using the same situation of Frame 313 of the Zapruder film, he could have a clear shot at the President from there.

"I wasn't there," said Frazier.

"I couldn't say. I was never on top of it."

"Do you recall any obstructions that would have prevented a clear shot?" continued Oser.

"There are only a few trees along this area," said Frazier.

"I don't recall where they were."

Oser pointed to another building in Dealey Plaza and asked if he would have a clear shot there.

"I can't say," said Frazier.

"I wasn't there."

Pointing to the grassy knoll area — from which Garrison has contended shots were fired — Oser asked if there would have been a clear shot available there.

"I don't know to what you are referring," said Frazier.

Oser showed Frazier the area again. "I ask you if there could have been a clear shot from here?" questioned Oser.

"I couldn't answer unless I had been there and walked over the area," replied Frazier.

"During your reconstruction of the scene, did you have occasion to take views through the rifle from other areas than the one you used?" questioned Oser.

"No, sir," replied Frazier.

Oser moved into involved questions about angles and perpendicular lines, concerning the President and the sixth floor

window in the book depository.

Judge Haggerty told Oser at one point, "I don't understand your questions," Frazier told Oser that he did not know if angles were measured. "That was not part of my job," he said.

Then Oser switched to the State Exhibit concerning an aerial photo of Dealey Plaza. He asked Frazier if there was a clear shot at the President on Houston st. as it approached the book depository.

"There would have been," he said.

"Would it have been a better view than on Elm st.?" asked Oser.

"I don't know if it would," said Frazier.

"Do you have any opinion whether more of the President's body would have been exposed as the Presidential limousine was approaching on Houston rather than going away on Elm st.?" Oser asked.

"No, sir, I don't," said Frazier.

Prosecution Takes Up Gun Questions

Oser took up the state's exhibit, a gun that has been credited as being similar to one that Lee Harvey Oswald once used. Frazier told Oser it differed from the one he (Frazier) examined in Washington and allegedly was the one used by Oswald in the assassination.

"When did you first see the gun you examined?" asked Oser.

"It was about 7 a. m. in the morning on Nov. 23, 1963," said Frazier.

"Can you tell us how it came into your possession?" asked Oser.

"I don't know," he answered. "I think it was obtained from an FBI officer in Dallas."

Oser turned to Frazier's Friday testimony that three shots
Continued in Sec. 1, Page 28

Continued from Sec. 1, Page 27

were gotten off in 5.9 seconds from 45 feet with a rifle similar to one used by Oswald. Frazier explained that this was determined by using stop watches.

Frazier said he had the best time of the three — the 5.9 seconds. Cunningham had a time of eight seconds and Killion about nine seconds.

"How did you get the average time?" asked Oser.

"I've never done that," said Frazier.

"Can you tell me why Agents Cunningham and Killion didn't fire at 75 feet?" asked Oser.

"No, sir," said Frazier.

Oser asked him his times at 75 feet, and Frazier said they were 4.6 seconds and 4.8 seconds to get off three shots.

Frazier said he also fired outside at 300 feet and got off shots in 5.9 seconds, 6.2 seconds, 5.6 seconds and 6.5 seconds.

Oser probed into the reason why Cunningham and Killion did not fire other than the 45 foot range. "Were you over the other two agents?" asked Oser.

"If you mean could I order them to do something," answered Frazier. "No, sir, we all held the same positions."

Frazier explained the targets, saying he used a silhouette target at 45 feet, a round target at 75 feet and a black square on a white background at 300 feet.

"I believe you testified it was 265 feet from the sixth floor window to the President," said Oser. "Why didn't you use 265 feet in some of your experiments?"

"I don't recall why," said Frazier. "The Warren Commission asked us to do it at 300 feet and 100 feet."

"With your long years of experience and being a ballistics expert, wouldn't you deem it more reasonable to use 265 feet?" asked Oser.

"No, sir," replied Frazier. "All shots were not fired at 265 feet so there is no bearing."

Oser said, "Well, none of them were at 75 feet or 100 feet either."

No Experiments Done with Moving Target

Then he asked Frazier, "Why didn't you use a moving target?"

"We were conducting accuracy tests," said Frazier.

"Then you were not worrying

about whether a man firing from the sixth floor window of the Texas Book Depository could hit a moving target?" questioned Oser.

"That was not the purpose of the test," replied Frazier.

Moments later, Judge Hagerty looked up at the clock and called a halt to the morning's testimony.

Following the recess for lunch, the trial was resumed at 1:35 p. m.; and Oser immediately launched into a series of questions concerning accuracy and speed tests that Frazier supervised, using the Mannlicher-Carcano rifle.

After establishing that the tests were conducted at the FBI indoor range at Washington, D. C., and at the U. S. Marine Corps base at Quantico, Va., Oser asked Frazier what the distance was from the sixth floor window of the depository to the limousine as depicted in Frame 313 of the Zapruder film. He answered that it was 265 feet.

"And how far was the sixth floor window from ground level?" asked Oser.

"About 60 feet," was Frazier's reply.

Oser then asked if the tests at the firing ranges were conducted from a 60-foot elevation. "No, sir," said Frazier. He said the test at the indoor range was fired from a horizontal angle.

Oser asked why a 60-foot elevation was not used at the indoor range and Frazier answered: "That was not the purpose of the test."

"Did anyone tell you not to shoot at 60 feet elevation?"

"No, sir," said Frazier.

Frazier said that, at the indoor range, the purpose of the test was to learn whether three aimed shots could be fired in six seconds.

Distances in Rifle

Tests Are Discussed

He said this indoor test was conducted at both 45- and 75-foot distances from the target.

Oser asked why it was necessary to see if this could be done in six seconds.

"According to the information coming to me from different sources, I was asked to conduct the test within six seconds."

Oser then asked if Frazier had not been the only one of three marksmen to make the shots in six seconds. Frazier said this was so on the test

conducted from the 45-foot distance; and he continued, "I said we fired this test to determine if the rifle could be fired three times in six seconds; the primary purpose was accuracy in rapid fire."

Oser asked Frazier what the elevation was for the tests conducted at the outdoor range. "I

don't recall," answered Frazier, "approximately three or four feet."

"Why did you not set up a range with an elevation of 60 feet?" asked Oser.

"We selected our firing conditions under instructions of the Presidential Commission, and that was 300 feet. Why they selected that distance I do not know," said Frazier.

Oser asked Frazier if any tests were conducted "in close proximity to what is alleged to have happened," that is a test from an elevation of 60 feet fired at a moving target 265 feet away.

"No, sir," replied Frazier.

Oser then questioned him closely about the timing of the tests.

Frazier said that when the tests were conducted, there was a bullet in the chamber and two in the clip.

He said the timing began at the sound of the first shot and stopped at the sound of the last shot.

Oser asked if his time for shooting at the outdoor range under these conditions was 5.9 seconds, 6.2 seconds, 5.6 seconds and 6.5 seconds.

"That's correct," Frazier answered.

"Did those calculations take into consideration the time required to draw the first bead on the target?" Frazier said they did not.

Time to Draw Bead

Not Taken Into Account

"If it did, it would have taken somewhat more time to fire that first shot," Frazier said he agreed this would have been the case; but he added it was not necessary to figure this in, since a person can take as long as he wants to draw a bead.

Oser asked if it wouldn't take a person attempting to hit a moving target longer to draw a bead. Frazier said it would.

Oser then asked Frazier for

an approximation of the time it took him to aim and get off three shots. Frazier said he paid no particular attention to the required time, adding "There was no point in recording an unknown aim time."

"You do not deem important how long it took to aim?" asked Oser, but Dymond objected, saying Oser was arguing with the witness.

Oser then asked Frazier to examine the Mannlicher-Carcano that has been used during the trial, and he asked the witness if the Mannlicher-Carcano he tested contained a sling stop. "Yes it did," said Frazier.

He then had Frazier describe how the sling was attached to the rifle he tested.

Frazier admitted that, whereas the sling would normally assist in accurate shooting, "I found it difficult for me to use this sling; therefore, I did not use it."

"You did not use it in your firing tests?"

"I never fired at any time using that sling," answered Frazier.

Oser asked Frazier how long it took him to get off his first two shots when he was firing at the 300-foot range. The witness said, "We did not time the interval between the first and second shots; I saw no purpose in it."

Oser asked him to approximate, and he said it would probably be approximately half the total time "or in the neighborhood of three seconds."

"Did you take into consideration aiming time for the first two shots?"

"I couldn't estimate, because I don't know how long it took to aim the first shot."

Frazier testified during the morning on direct questioning by the defense that a rifle projectile traveling faster than the speed of sound gives off a sonic boom much like an airplane, and he said that a person in advance of the firing position might hear both sounds for a single shot — the sonic boom as well as the report as the bullet leaves the muzzle.

'Locality, Topography Can Affect Sounds'

Oser asked if the locality or type of topography can cause sounds of rifle fire to vary. "It can, yes," answered Frazier.

Oser asked if a rifle fired in

an open prairie would sound different than a rifle fired in the downtown area of a city.

"I would say the quality of the sound might change," said Frazier, indicating the downtown echoes might cause this, "but I think you would still hear the sonic report of a bullet and the muzzle report of exploding gases."

Oser asked Frazier if during the re-enactment any other possible origination points where a rifle might have been fired were considered other than the sixth floor of the depository.

"I don't know," he answered, "I didn't."

"Why didn't you?" asked Oser.

"I wasn't asked to," he re-

plied.

Oser asked Frazier if, when he tested the rifle, the scope was securely fastened, and the witness said it was.

"When you received it, was it securely fastened?"

"It was not," answered Frazier.

Oser asked what was the problem, and Frazier said the mounting screws were loose.

"Then when you received the rifle, the sight wobbled or moved?"

"When I received the rifle that was the situation," Frazier answered.

Oser asked if it was not a fact that, if the sight on a rifle moved because it was not securely fastened, it would affect the accuracy of the rifle. "Yes, sir," said Frazier.

Oser asked Frazier if on the range he had to move his head after each shot. He said he did, and Oser asked why. "To prevent the bolt from hitting my eye," Frazier answered.

Frazier said the scope was tightened when he used the rifle for the tests.

"Before tightening the scope, did you have occasion to shoot the rifle?"

"No sir," said Frazier.

"Do you know if anyone fired that rifle in the condition it was received?"

"No one in the FBI lab fired it," said Frazier.

Oser then began his attack upon the single-bullet theory, that is that the nearly intact bullet found on a stretcher in Parkland Hospital in Dallas

caused wounds in both President Kennedy and Gov. John Connally.

Frazier was asked to describe the nearly intact bullet he received.

He said it was practically in original condition except that at the base it was flattened sideways, and there were marks or grooves, which later showed it to have been fired from the Mannlicher-Carcano.

He was shown a blown-up photograph of a nearly intact bullet, labeled State Exhibit 64; and he said it was "similar" to Commission Exhibit 399.

Witness Describes Parts of Bullet

Oser then showed Frazier a 6.5 Mannlicher Carcano cartridge and asked him to explain to the jury the various parts including the bullet, the cartridge case and the cartridge itself.

Frazier said the front part that leaves the rifle is the bullet, and the end that remains is the cartridge case, and he said the base of the cartridge contains the primer that sets the bullet in motion when the rifle is fired. The bullet and cartridge case form the cartridge.

In answer to two questions by Oser, Frazier said that he could not tell when the three cartridge cases he examined were fired, nor could he tell when the nearly intact bullet was fired.

"I have no way of knowing when they fired," he said.

Oser asked Frazier if during the various tests he conducted he ever weighed the pellet or bullet of a 6.5 millimeter cartridge. Frazier said he weighed several, and the average weight was 161 grains.

"Did you have occasion to weigh Commission Exhibit 399?"

Frazier said he had and it weighed 158.6 grains.

"How many pieces or fragments of pellets were in your possession at the time you conducted your tests?"

"I believe there were nine," said Frazier. He said he weighed them, and he reported the weights as follows: Exhibit 399, 158.6 grains; the nose part of the bullet jacket, 44.6 grains; the base of a bullet jacket, 21 grains; three fragments found in the limousine, .9 grains, .7 grains, and .7 grains; a pair of lead particles removed from the President's head, 1.65 grains and .15 grains, and a fragment

removed from Gov. Connally, .5 grains.

Frazier then acknowledged, in answer to another question, that when a 6.5 millimeter bullet is fired "there may possibly be a slight loss of weight."

Frazier was then asked to explain what was meant by calling Exhibit 399 a "jacketed pellet." Frazier said bullets have a copper alloy envelope covering a lead core. Oser asked if any of the jacketed Exhibit 399 was missing. "There was no discernible amount of jacket missing," he told the court.

Oser asked if such a bullet is fired what could possibly remove the copper jacket.

He said it would require the bullet to strike some object with sufficient force to remove the jacket, but said if the bullet tumbled in flight and struck an object in a backwards position the jacket would not necessarily be removed.

Oser asked Frazier if when he received the nearly intact bullet he ascertained if there was any evidence of blood, flesh

or fabric on it. "There was none when I examined it; it was relatively clean."

"When did you get it in your possession?"

Frazier referred to some papers he had and finally said he could not find a reference, but said it was delivered to him about 6:30 p. m. Nov. 22, 1963, the same day as the assassination.

Oser then introduced another exhibit which Frazier said looked familiar to something he had seen, but when Oser asked him if during his examinations he viewed a pellet fired from a 6.5 Mannlicher-Carcano into a wrist area, Frazier said he had not been told that.

Bullet Delivered to Be Photographed

He said that when he saw the bullet similar to the one depicted in the exhibit "it was delivered to me by the Presidential Commission for the purpose of having it photographed."

Frazier said "that was the only occasion I recall seeing a bullet of this type," and said he did not see a pellet that had

struck a wrist area "not to my knowledge."

Oser asked if he had ever seen a pellet that had struck a rib and wrist, and Frazier repeated he had not "to my knowledge."

He said the effect on the bullet striking such objects would depend on the type of ammunition, the hardness of the bone, and various other factors.

Oser then questioned Frazier closely about the examination of clothes worn by the President and Connally, especially about the shape of some holes which Frazier said were slit-type tears.

Oser asked Frazier a hypothetical question, the gist of which was:

If an individual shoots a 6.5 millimeter Mannlicher - Carcano carrying an average velocity of 2,165 feet per second (Frazier said his figure of 1,965 feet given during the morning was in error) and this particular pellet hits one person in the back and exits in the shirt area, where you found the hold, and enters another person, where you found the hold and exits and remains intact as in Exhibit 399, can you tell why there would be slit-type holes in the shirt, ragged and not round?

Dymond objected that the question was too involved to be answered as a single question and also maintained that there were two people involved.

Judge Haggerty asked that the question be read back and after hearing it said, "I think the question can be answered."

Frazier said "With reference to the slit-type holes on the front of the garments, this often occurs because there is no substance backing up the garment, as in the case when a bullet strikes, and these fibers break along the weakest part."

Oser asked about the hole in the governor's sleeve, and Frazier said a number of factors could have caused this, adding that as the bullet passed through the sleeve it may have removed fibers. He said that the bullet's velocity may have been decreased and it may have been traveling end over end.

"Did you find any fabric on Exhibit 399?"

"No, sir," said Frazier.

Position of Stand-ins Object of Questions

Oser's last series of questions

before a 3 p.m. recess concerned the position of the stand-ins for Kennedy and Connally in the reenactment of the assassination in Dallas in May, 1964.

Frazier said a white mark was placed on the Kennedy "stand-in" based on medical reports. He said the coat President Kennedy wore could have been bunched up in the back, resulting in the bullet hole being lower than the medical testimony which indicated the bullet entered at the base of the neck.

Oser asked Frazier if he ever viewed any photographs showing the President's coat bunched up in the back. "I don't recall if I did," said Frazier.

"Couldn't Gov. Connally's coat have been puckered up in the back, too?" asked Oser.

"I did not take any of this into account," said Frazier.

Oser asked why, and then added, "Is it because you were doing what the Commission asked you to do?" He then moved on to another question without waiting for an answer.

In answer to his next question, Frazier said that there was a time during the reenactment when the stand-in for the President and the stand-in for Connally were in line when it was possible for a single shot to have struck both men.

"I have said only that this was possible," said Frazier. "I didn't say it did happen."

After a few more questions, Alcock said he was going into a new area of questioning and he suggested a brief recess which Judge Haggerty granted.

Frazier was still on the stand as court resumed at 3:30 p.m. and Oser still was cross-examining him.

"Were there any copper traces on slits of the President's tie?" Oser opened.

"No," answered Frazier.

"In your examination of the concrete curbing in Dealey Plaza was there any metallic substance?" inquired Oser.

"There was a slight lead smear," said Frazier.

"In your examination of the Dealey Plaza area, did you ascertain the downward angle of the bullet as it entered the back of the President?" asked Oser.

Frazier replied that someone

else did this measurement.

"What was the angle in frames 223 and 224 of the Zapruder film?" asked Oser.

"Approximately 17 to 20 degrees," said Frazier.

Asked If Information of Agents Available

"Did you have available when you were recreating this assassination information that federal agents at the autopsy said the angle of entry was 45 degrees?" questioned Oser.

"No, I don't recall," said Frazier.

Oser began to ask Frazier another question about information that he may or may not have had and Dymond objected. "We don't know if such a report exists," said Dymond.

Judge Haggerty interceded, telling Oser, "In fairness to the witness, ask him if he had any such report available, not quote him passages from five or six."

"Did you have the reports of these agents?" asked Oser.

"No, sir," said Frazier.

Oser began another long question. He said, "Mr. Frazier, I ask if you made this statement before the Warren Commission report. They asked you if you knew that the bullet passed through both the President and the governor in frames 207 to 225 of the Zapruder film and you replied, 'I don't have any technical evidence to support it one way or the other. I would say it is possible, but not probable.'"

"That is part of the discussion of a hypothetical question," said Frazier. "And I made the statement in answer to that."

Oser said in a high-pitched voice, "That's all."

Dymond echoed Oser, asking, "That's all?"

Dymond resumed the questioning, asking Frazier if the opinions he had been giving "are your honest professional opinions."

Frazier said, "Yes."

Dymond asked Frazier if there would have been anything between the President and the person firing a rifle from the sixth floor of the book depository as the presidential vehicle came on Houston st.

Frazier named three — the windshield of the car, Gov. Connally and a special agent. But he added, "With the elevation of the President, it may have

been possible to fire over the individuals. I didn't determine this."

"Was there any difference in the mechanical operation in the gun you examined and the one on exhibit here?" asked Dymond.

"It was more difficult to draw back and operate the bolt of this gun," he said.

"As an expert would you say that practice helps in developing speed and accuracy of operation of a rifle?" questioned Dymond.

"Yes, it would," replied Frazier.

Frazier told Dymond that back to Frame 207, the Presidential limousine would be underneath a wide oak tree. "You could see individuals, but not clearly," he said. "Not their entire outline."

"How many frames before No. 399 could you get a clear view?" asked Dymond.

"Approximately 106 frames," said Frazier. "Just a little over six seconds."

"Would that be sufficient time to draw a bead on the President before frame 313?" asked Dymond.

"Yes, sir," said Frazier.

"Do you know if the sight of the gun was loose prior to your receiving it?" Dymond questioned.

"No, I don't know," said Frazier.

"Referring to State Exhibit No. 63," began Dymond, "was the point marked on the President's standin estimated or taken from the point of wound?"

"The point of the wound," said Frazier. "It was taken by measure at the autopsy."

"That's all, sir," said Dymond.

Oser resumed the examination of Frazier. After two brief questions, Oser asked:

Shot Said Fired from 265 Feet

"Mr. Frazier, you said the shot from the sixth floor of the book depository was real easy; now can you name anyone con-

ected with the FBI or Secret Service who has accomplished the same feat as noted in the Warren Report of firing from 60 feet off the ground level at a distance of 265 feet and at a moving target?"

Dymond objected, but was

overruled.

"I know of no such test or individual who has done this," said Frazier.

Closing his notes dramatically, Oser said, "That's all."

Dymond added, "That's it."

The defense next called Mrs. Paine to the witness stand. The tall, slim woman identified herself as a kindergarten teacher from Irving, Tex. She was clad in a blue dress with white pearls around her neck.

Dymond asked her to tell how she became acquainted with the Oswalds.

"I met them in February, 1963, at a gathering of mutual friends," said Mrs. Paine. "I saw Marina (Oswald's widow) more than Lee. Lee went to New Orleans in May, 1963."

Mrs. Paine said she had come to visit the Oswalds and noticed they were packed. "I told Marina she could come stay at my home till Lee found work in New Orleans," she explained. "So a week later I took Marina to New Orleans, first to Lee's aunt and uncle and then to Magazine st."

"Was that 4905 Magazine?" asked Dymond.

"I thought it was 4907," Mrs. Paine corrected.

"There has been some dispute over that," said Dymond.

Mrs. Paine said she stayed over that weekend, but returned to Irving with her children, leaving the Oswalds in New Orleans. She didn't see them again until late September, 1963, but had written Marina in the meantime.

According to Mrs. Paine, she came to New Orleans Sept. 20, 1963, remained over the weekend at the Oswald apartment on Magazine st., and left with Marina and her child on Sept. 23. "We got to Irving Sept. 24," said Mrs. Paine.

"Was Lee Harvey Oswald living at the apartment that weekend?" asked Dymond.

"He was in evidence most of the time day and night," she answered.

Mrs. Paine said that during the time she knew Oswald she did have opportunities to observe his general appearance.

"Would you describe him as sloppy or dirty?" asked Dymond.

"No, he dressed informally," she replied. "But he was neat

and clean. When he came to visit with Marina at my home in October, 1963, over the weekends, he would wear slacks and T-shirts.

Helped Mrs. Oswald to Wash Clothing

"To the best of my recollection he was neat and clean. I recall going to a washateria with Marina in New Orleans to help her wash Lee's clothes."

"Did you ever see Lee wear a beard?" asked Dymond.

"No, I never saw him with one," said Mrs. Paine.

"Did you ever see him when he needed a shave?" continued Dymond.

"No, I didn't," Mrs. Paine rejoined.

Dymond showed her a picture of Oswald and she said she recognized it. Then he showed her one of Oswald with a beard drawn on it and asked her if she ever recall seeing him with such a beard.

"No," she said.

"Now I show you a picture of David W. Ferrie," said Dymond, "and ask if you recognize this man."

"This face in not familiar," she replied.

"Prior to the publicity about this case had you heard the name of David Ferrie?" asked Dymond.

"No," Mrs. Paine replied.

Dymond did the same with the names of Perry Russo or Perry Raymond Russo, Clem or Clay Bertrand. Mrs. Paine said, "Lee never made reference to anyone he knew."

"Did Lee Oswald drive a car?" asked Dymond.

"I can best answer that by describing my attempts to teach him to drive in October, 1963," said Mrs. Paine.

"Please do," said Dymond.

Mrs. Paine said she took Oswald to a parking lot and attempted to teach him to drive. "He was awkward at right turns," she said, "and he kept the wheel cramped, as most beginners do. He tried to park and he couldn't do it. He was eager to learn but I could see he had no experience behind the wheel."

Dymond turned to where Mrs. Paine was at the time of the assassination. Mrs. Paine said she and Marina Oswald were watching television and heard the news of the shooting on it.

"Did you own an automobile?" asked Dymond.

"A Chevrolet station wagon," said Mrs. Paine.

"Did it have a rack on top of it?" continued Dymond.

"No, not at the time of the assassination," she replied.

Dymond asked her where the station wagon was parked when she heard of the assassination. "In my driveway," she said.

"Did you loan it to anyone that day?" he asked.

"No," replied Mrs. Paine.

"Did you loan it, more particularly, to a rough-looking, heavy Latin type man?" added Dymond.

"No," she replied.

Dymond asked her to explain how Oswald obtained his job at the Texas Book Depository.

"Lee had been in Dallas about a week," she recalled. "He came that first weekend to see Marina and said he was having bad luck on looking for a job. The next Monday Marina and I were having coffee with some neighbors and telling them of the situation. Lee didn't drive, so that limited the work he could do. He couldn't get a delivery job, and transportation is poor."

Mrs. Paine said as a result of this conversation she called the Texas Book Depository and asked if they were doing any hiring. That next day Oswald got a job there.

"Did Oswald know you were making this call?" asked Dymond.

"No," she answered.

"Did he ask you to make it?" Dymond asked.

"No," she replied.

She Never Saw Oswald with Gun

"Did you ever see Lee Oswald with a gun?" Dymond queried.

Mrs. Paine said she did not.

"Did you know one was stored in your garage?" asked Dymond.

"No, I didn't know one was there," she said, "not until after the assassination. If I had known one was there I wouldn't have wanted it because I have small children."

Dymond finished up the direct examination by asking her a series of questions, including "have you ever seen Clay Shaw before."

She answered, "Not before today in court."

"Have you heard the names. Clay Shaw, Clem

Bertrand and Clay Bertrand before this case?" asked Dymond.

Mrs. Paine answered, "I have not."

Dymond yielded questioning of Mrs. Paine to Alcock.

Mrs. Paine, in response to a question, said the next time she saw Lee Oswald after her New Orleans visit in September was Oct. 4, 1963.

Alcock wanted to know if Oswald ever gave his telephone number to Marina or her. "I tried to call him once using the phone number he had given Marina," said Mrs. Paine. "Someone answered, but said they didn't know a Lee Oswald. I asked him if this was the number that I had. He said it was the number and it was a rooming house."

"Did Lee Oswald ever inform you why he couldn't be located then?" asked Alcock.

"When he came to see Marina on the weekends at your home, did Lee Oswald ever leave your home?" inquired Alcock.

"No," said Mrs. Paine.

"Did you ever see him with a package about three feet long?" asked Alcock.

"No," she answered.

"Was there any rifle range close to your home?" asked Alcock.

"None that I knew of," she answered.

"Lee Oswald didn't come home the weekend before the assassination, did he?" continued Alcock.

"No," she said, "Marina asked him not to."

But she said Lee Oswald did come to her home the Thursday before the assassination, arriving "sometime before 5:30 p.m."

Mrs. Paine said they had dinner together. "Lee went to his room about 8:30 p.m. or 9 p.m.," she recalled.

"I worked a short time in the garage that night. I noticed a light was left on in the garage."

"Did Lee Oswald have a key to the garage?" Alcock asked.

"Probably not," she replied.

"When did you see the light in the garage?" questioned Alcock.

"It was after Lee went to his room," she said.

No Curtain Rods Bought for Oswald

Alcock turned his questioning

to curtain rods.

"Did you buy any curtain rods for Lee Oswald?" he asked.

"No," said Mrs. Paine.

"Did he ever ask you to buy him some?" continued Alcock.

"No," she said.

"Did you ever see any curtain rods in his possession?" asked Dymond.

"No," said Mrs. Paine.

Finally, on the subject of cur-

tain rods, Mrs. Paine said there were some curtain rods in her garage, but Lee Oswald didn't ask to use them.

Mrs. Paine testified that Oswald's belongings in her garage "were more or less in one corner."

Alcock probed into a blanket roll of Oswald's. She said she didn't know what was in the blanket roll, but when police officers came after the assassination, they picked it up but didn't open it. "It looked partly empty," she said.

Alcock asked who unloaded her station wagon coming back from New Orleans in late September, 1963. She said she and Marina did some of the unloading, and her relatives helped. "I didn't know what all the packages contained," she explained.

"Who loaded it in New Orleans?" asked Alcock.

"Lee packed and loaded their things," Mrs. Paine replied.

"Is it a fair statement that you saw more of Marina than Lee Oswald in April, 1963?" asked Alcock.

"Yes, I saw Lee only two or three times," she said.

"Was Lee talkative?" asked Alcock.

"No," she answered.

"Did he like to read?" continued Alcock.

"Yes, but he didn't do much reading at my house; he watched TV," she said.

"Did any FBI agents come looking for Oswald at your home in November?" asked Alcock.

"It was early in November," said Mrs. Paine. She said she thought they came there on two occasions.

"I told one that Lee was working at the Texas Book Depository," she said. "I told him

I hoped he would be discreet if he went to the book depository because Lee had been afraid of losing his job. He said he would."

"Mrs. Paine, have you ever heard of the name O. H. Lee?" asked Alcock.

"Not before the assassination," she said.

"How about the name A. J. Hidell?" questioned Alcock.

"Not before the assassination," she answered again.

Alcock turned to the time she was preparing to go back to Irving from New Orleans in September, 1963. "Did Lee mention what he was going to do?" he asked.

"He said something about going to Houston or Philadelphia to seek work," she testified.

"Did he mention Mexico?" inquired Alcock.

"No," replied Mrs. Paine.

"Would I be correct in saying you did not see Lee Oswald in the summer of 1963?" Alcock probed.

"That is right," she agreed.

"I did not."

"And he never told you of friends of his?" asked Alcock.

"No, he didn't," said Mrs. Paine.

Alcock surrendered Mrs. Paine for re-direct examination.

Dymond had only one question for Mrs. Paine. "Why was the FBI coming to your home looking for Oswald?" he asked.

"There was no discussion as to why," Mrs. Paine replied, "and Lee didn't say."

Minutes before 5 p. m., Judge Haggerty decided that was it for the day.

Frazier took the stand for more direct questioning by the defense after the trial was resumed at 9:15 a. m., but highlights of his testimony came in the closing minutes of questioning by Dymond.

It was during this series of questions that Frazier said:

—The fatal shot which struck President Kennedy in the head, as shown in Frame 313 of the Zapruder film, would have been "a relatively easy shot" from the sixth floor window of the Texas School Book Depository.

—He was unable to find anything in his examinations for the Warren Commission that

would be inconsistent with all shots fired on the presidential limousine coming from the right rear area.

—He found nothing in his examination that would indicate that shots were fired from anywhere but "above and behind" the limousine.

Much of Frazier's testimony during the 45 minutes he was questioned by the defense concerned his examination of clothing worn by President Kennedy and Gov. Connally the day they were shot.

Witness Is Qualified As Ballistics Expert

Frazier first took the stand Friday at 4:30 p.m. and underwent one hour of questioning by the defense. He heads the bullet and tool mark identification unit of the FBI and was qualified as an expert in the field of ballistics without any opposition or questioning by the state.

Continued in Sec. 1, Page 29

Continued from Sec. 1, Page 28

Dymond opened his questioning Saturday by asking Frazier if, in connection with the rifle given to him by the Warren Commission for examination, he was also given a live round of ammunition.

Frazier said this was so, and Dymond asked if he found any similarity between the live round of ammunition and other bullet fragments he was given by the Warren Commission for examination. These included an almost intact bullet, two bullet fragments, one a nose and the other a base fragment, three small fragments found in the limousine and a lead smear taken from the interior of the limousine windshield.

Frazier said all material examined had the same metallic composition as far as lead portions were concerned. He said this indicated they may have originated from the same source, but he added it was not a conclusive test.

The questioning then moved into the area of examinations he made of the clothing of Kennedy and Connally.

Regarding Kennedy, Frazier said he examined his suit coat, shirt, tie, underwear, socks, shoes and back support.

Dymond asked what he

learned upon examining the coat.

Frazier said he found only one hole, a small circle about a quarter-inch in diameter some 5 $\frac{1}{8}$ inches below the top of the collar in the back and an inch and $\frac{3}{4}$ ths over from the center line.

Frazier said he examined the hole and fiber around it; and it indicated that the cloth was torn in very short radial splits, and all clothing fibers were pushed inward.

He explained that this means that from the outside the cloth had a smooth appearance, but from the inside the fibers stood out. He said this indicated an object passed through the coat from the outside. "This hole in the fiber had the appearance of a bullet entrance hole," he said.

Frazier said that the back of Kennedy's shirt also contained a hole in about the same position as the coat—this one 5 $\frac{1}{8}$ inches down and 1 $\frac{1}{8}$ inch from the center line—and it showed fibers pressed inward. This hole, too, he said was quarter-inch in diameter; and it also appeared to be a bullet entrance hole.

He said that there was a short slit, about a half-inch long in the button line and button hole on the front of shirt just below the collar. He said it appeared an object exited at this point because of the shape of fibers pressed from the inside outward.

He said it coincided with holes in the back of the coat. Frazier said the examination of the neck tie worn by Kennedy showed the fibers were broken along the left side of the knot, and these corresponded with the position where the split occurred in the shirt. He said fibers of the tie did not indicate anything.

Possibility of Single Projectile Advanced

"As an expert in the field of ballistics, can you say the same projectile caused all four holes?" asked Dymond.

"I could say they may have been caused by the passage of a single projectile," he answered.

He said he could not substantiate it, but could only state it as a possibility. Frazier said

only one shot was fired in the President's back; and it made corresponding holes in the back of the suit coat and the back of the shirt; but he said the hole in the front of the shirt "was just a slit that did not possess bullet hole characteristics."

"Were there any characteristics not made by the exit of a projectile?" asked Dymond.

"No, sir."

He said the shot would have come from the rear.

Frazier then discussed bullet holes he found in Gov. Connally's suit coat. He said there was a hole located on the back near the seam where the right sleeve attaches to the coat and another hole in front on the right hand side.

Frazier then explained that the coat was cleaned and pressed before it was forwarded to him and he was unable to reach any conclusions about fiber directions.

Dymond asked if, however, in relationship to the re-enactment when stand-ins represented both Kennedy and Connally, he had found anything inconsistent with the possibility that the same bullet which struck Kennedy also struck Connally.

Assistant District Attorney Alvin V. Oser Jr. objected on the ground that the testimony would be hearsay.

He said Frazier's answer would be "what could have happened as a result of what the Warren Commission told him as a result of what witnesses told

the Warren Commission."

Dymond countered that Frazier saw the Zapruder film and was qualified as an expert in the field of ballistics.

Oser maintained Frazier "has no particular technical knowledge in this area (photography); he is certainly not a photographic expert."

Judge Haggerty said he would permit the question.

Frazier then said that, based upon his knowledge, he found nothing that would be inconsistent with the possibility that the same bullet struck both the President and Connally.

Dymond asked what his reasons were, and Oser again objected on hearsay, but Judge Haggerty overruled the objec-

tion.

Frazier said his answer was based upon his examination of the presidential limousine and the location of individuals in it; he said Connally was nearer the center of the car than the President, "who had his arm on the side rail, and Gov. Connally was inward several inches from the door."

He said a bullet from the rear and above that passed through Kennedy would have struck Connally "at the place where there was a hole in his coat."

Shirt Also Had Holes But in Front, Back

Frazier said he also examined Connally's shirt, and he found a hole in the back, "slightly elongated, not a regular round hole, that generally corresponds to a hole from in the front, an irregular tear accompanied by an egg-shaped hole."

He acknowledged that the shirt was also laundered before it was sent to him for examination.

Dymond asked the witness if laundering or dry cleaning usually removes the characteristics from the fibers by which a ballistics expert can determine whether the openings are entry or exit points. Frazier said this is true.

Frazier also discussed holes he found in the right sleeve of Connally's coat and in his cuff.

Because of the irregular shape and the laundering, Frazier said he "could make no conclusion as to whether it was caused by a bullet or some other object."

Dymond asked if, because of his study of the film in relationship to holes found in Connally's clothing, he could say they were caused by the same projectile.

"No, sir."

"You cannot testify this is a fact because of the laundering?"

"That is correct."

Frazier said he also examined a hole, roughly circular and a quarter-inch in diameter, in the left knee area of Connally's pants. He said the hole was slightly elongated, "possibly due to tearing of the cloth," and because the pants were laundered he could not determine whether it was an entry or exit hole.

In connection with this hole,

Dymond asked, if it was inflicted by a bullet fired from a gun in front of the motorcade "would it not have penetrated the windshield?"

Frazier said it would have either struck the windshield, metal portions of the windshield, or the back side of the front seat, and he said there was no evidence of this.

Dymond's questions then concentrated on the speed of bullets fired from the Mannlicher-Carcano which Frazier examined. Frazier has not been permitted to identify the rifle as the one the Warren Report says was found on the sixth floor of the school book depository, from which it claims Oswald fired at Kennedy.

Dymond asked, in relation to the Mannlicher-Carcano, what would be the approximate speed of a live bullet fired from it.

Frazier said the velocity at the muzzle would be 1,965 feet per second, and he said it could vary as much as 40 feet per second either way. He said the 1,965-feet-per-second figure represented the average.

"To what extent would this speed diminish over a distance of 265 feet?" asked Dymond. (It was pointed out in earlier testimony that, when President Kennedy was struck in the head, as shown in Frame 313 of the Zapruder film, he was 265 feet from the sixth floor window of the depository.)

Frazier said the velocity of a bullet decreases about one foot per second for each foot it travels, and he calculated that a bullet fired from 265 feet away from the limousine would be traveling at 1,800 feet per second by the time it reached the limousine. He also testified this is above the speed of sound, which is 1,100 feet per second.

Bullet Is Compared To Boom of Plane

Dymond questioned him about acoustical characteristics of a

bullet traveling in excess of the speed of sound, and Frazier compared them with the sonic boom of an aircraft exceeding the speed of sound.

Dymond then returned to the lead smear which Frazier testi-

fied Friday was found on the interior of the windshield.

Dymond asked a hypothetical question: If a Mannlicher-Carcano rifle were fired from a distance of 265 feet "would it ordinarily penetrate an automobile windshield?"

Oser objected that the question contained facts not testified to, and Alcock added that a hypothetical question must contain fact proven in the trial.

Judge Haggerty said he would permit the question.

"Yes, it would," answered Frazier.

Dymond then said if, upon hitting the windshield, the hypothetical shot did not penetrate

the windshield, what could be a reason.

"The velocity of the projectile had dropped very drastically to the point where it would not break glass."

Dymond then asked if a hypothetical shot penetrated the skull of an individual and exited would this cause its velocity to drop to such a point.

"I think so, yes," answered Frazier.

Frazier was then asked questions about the difficulty of the shot ("It would not be a difficult shot with this rifle mounted with a four-power scope.") and the effect of the scope ("The effect of the scope was that it cut the distance by $\frac{3}{4}$; this produced the effect of a larger size and would be the same as if shooting at one-quarter the distance or 80 feet").

He characterized the shot "as a relatively easy shot slightly

complicated if the target is moving."

Judge Haggerty then asked the witness if the person shooting "would have to lead on a vehicle traveling 12 miles per hour."

Frazier said this would be necessary and the person with the gun would have to aim about six inches over his target to allow for the bullet and the target reaching the same point at the same time.

"In my opinion, 12 miles an hour does not require too much proficiency in esti-

imating lead," said Frazier.

Dymond then asked if, in relation to the sixth floor window, the vehicle moving on Elm st. in Dealey Plaza at 12 miles an hour was moving laterally or forward?

"It was going away from the window," said Frazier, and he said because its movement was forward rather than lateral it

FEBRUARY 23, 1969

reduced the lead necessary from two feet to six inches.

"From all evidence you have viewed, Mr. Frazier, did you find any evidence to indicate that shots came from anyplace other than the sixth floor of the

Texas School Book Depository?" asked Dymond.

"No, sir," was Frazier's quick reply.

Dymond said he was finished with his questioning, and Judge Haggerty called a brief recess

before the state's cross-examination of Frazier got underway.